

ABSTRACT

A “*Burst Ratio*” is defined for use as a measure of the burstiness of a packet-based network. One illustrative implementation of the *Burst Ratio* (R) is where R is equal to the ratio of the average length of observed bursts in a packet arrival sequence over the

5 average length of bursts expected for a random loss packet-based network. Another illustrative implementation of the *Burst Ratio* (R) is in the context of a 2-state Markov model, wherein $R = 1 / (1 + \alpha - \beta)$, and α is the probability of losing packet n if packet $n-1$ was found (i.e., the probability of losing the next packet if the current packet was received) and β represents the probability of losing packet n if packet $n-1$ was lost (i.e.,

10 the probability of losing the next packet if the current packet was lost).